[redacted]

Ministry of
Agriculture
Fisheries
and Food

AGRICULTURAL LAND CLASSIFICATION
CLEVELAND STRUCTURE PLAN REVIEW
LAND NORTH OF A174 (MARSKE-BY-THE-SEA)
CLEVELAND
JANUARY 1994

ADAS
Leeds Statutory Group

Job No:- 2/94
MAFF Ref:- EL04/09
Commission No: 835

2fcs 6782

SUMMARY

A semi-detailed Agricultural Land Classification survey of 150.8ha of land at Longbeck Road, Marske-By-The-Sea, Cleveland was carried out in January 1994.

144.2 ha of this was in agricultural use of which 18.4 ha falls within Grade 2. Soils consist of moderately well drained (Wetness Class II) medium clay loam, sandy clay loam and medium sandy loam topsoils. These overlie medium clay loam and sandy clay loam (sometimes gleyed) and occasional heavy clay loam subsoils at depth. Slight soil wetness and variability limits these soils to Grade 2.

50.4 ha falls within Subgrade 3a. Soils consist of imperfectly drained (Wetness Class III) medium clay loam topsoils, overlying medium clay loam, sandy clay loam and heavy clay loam upper subsoils. Subsoils consist of gleyed slowly permeable heavy clay loam and clay, with slowly permeable layers occurring between 45cm and 65cm depth. Soil wetness is therefore the main limiting factor for this Subgrade.

The remaining agricultural land (75.4 ha) falls within Subgrade 3b. Soils are poorly drained (Wetness Class IV), consisting of medium clay loam, medium silty clay loam and occasional heavy clay loam topsoils overlying gleyed slowly permeable clay subsoils. The slowly permeable layers occurring between 25cm and 40cm depth. Soil wetness and workability are the limiting factors for this subgrade.

The remainder of the site is classed as non-agricultural, urban and farm buildings.

CONTENTS

MAP

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND NORTH OF A174, MARSKE-BY-THE-SEA, CLEVELAND

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies to the north of A174 approximately 1km south of Marske town centre. It is centred around National Grid Reference NZ 635215. Survey work was carried out in January 1994 when soils were examined by hand auger borings at a density of one per two hectares at points predetermined by the National Grid. Two soil inspection pits were dug to assess subsoil structure. Land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales. Revised criteria for grading the quality of agricultural land (MAFF 1988)".

1.2 Land Use and Relief

At the time of the survey most of the site was in agricultural production, the remainder being urban and non-agricultural land. The site is level to moderately sloping (0-4°) and lies between 21m and 46m AOD.

1.3 Climate

Grid Reference	: NZ 635215
Altitude (m)	: 35
Accumulated Temperature above 0°C (January-June)	: 1332 day°C
Average Annual Rainfall (mm)	: 624
Climatic Grade	: 1
Field Capacity Days	: 157
Moisture Deficit (mm) Wheat	: 102
Moisture Deficit (mm) Potatoes	: 92

1.4 Geology, Soils and Drainage

Soils are formed on boulder clay which forms a thick cover over the underlying Jurassic (Lias) shales and limestones. Soils vary from occasional sandy loam to medium with occasional heavy clay loam topsoils over sandy clay loam and slowly permeable heavy clay loam and clay subsoils.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	18.4	12.2
3a	50.4	33.4
3b	75.4	50.0
4		
5		
(Sub total)	(144.2)	(95.6)
Urban	4.2	2.8
Non Agricultural	1.6	1.1
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.8	0.5
Open Water		
Land not surveyed		
(Sub Total)	(6.6)	(4.4)
TOTAL	150.8	100

2.1 Grade 2

Grade 2 land occurs in a relatively small area to the west of the site. Topsoils are generally very slightly stony medium clay loam or sandy clay loam, with occasional medium sandy loams found in places. These overlie very slightly stony, sometimes gleyed, medium clay loam and sandy clay loam subsoils, with heavy clay loam occasionally occurring at depth. Profiles are well to moderately well drained (Wetness Class I and II). Slight soil wetness and variability limit these soils to ALC Grade 2.

2.2 Subgrade 3a

Subgrade 3a land occurs in a number of areas from east to west. Topsoils consist of very slightly stony, medium clay loam and overlie upper subsoils of medium clay loam, sandy clay loam and heavy clay loam. Lower subsoils consist of heavy clay loam or clay, with slowly permeable layers occurring at between 45cm and 65cm depth. These soils fall into Wetness Class III and are imperfectly drained. Soil wetness is therefore the main limiting factor on land in this subgrade.

2.3 Subgrade 3b

The remaining agricultural land on the site falls within Subgrade 3b. Topsoils consist of medium clay loam or medium silty clay loam with occasional heavy clay loam, overlying gleyed slowly permeable clay subsoils. The soils are poorly drained (Wetness Class IV), with slowly permeable layers occurring between 25cm and 40cm depth. Soil wetness and workability are the limiting factors on land in this subgrade.

Land north of Marske Inn Farm is classed as an ancient monument and as well as being limited on soil wetness, has certain restrictions placed on it for agricultural use.

2.4 Urban

Urban land consists of roads through the site and a railway station. The site of a glasshouse remains at the western end of the site.

2.5 Non-Agricultural

Non-agricultural land consists of an area of land associated with the derelict greenhouses to the far west of the site.

2.6 Farm Buildings

These consist of Marske Inn Farm and Tofts Farm.

RPT File: 2FCS 6782
Leeds Statutory Group

MAP